



Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2005	5DZXL35.0001	17.5, 26.3, 35.0	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Smoke Puff Limiter, Turbocharger, Charge Air Cooler			Compressor, Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kW-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kW-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
kW > 560	Tier 1	STD	1.3	9.2	N/A	11.4	0.54	20	15	50
		CERT	0.6	8.6	--	1.0	0.22	9	8	13

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 28TH day of October 2004.

Allen Lyons, Chief
Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Deutz AG
 Engine category: Nonroad CI
 EPA Engine Family: 5DZXL35.0001
 Mfr Family Name: TBD 616
 Process Code: New Submission

Attachment 1 of 1
 4-R-013-0145

1.Engine Code	2.Engine Model	3.BHP@RPM (SAE Gross)	4.Fuel Rate: mm/stroke @ peak HP (for diesel only)	5.Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6.Torque @ RPM (SEA Gross)	7.Fuel Rate: mm/stroke@peak torque	8.Fuel Rate: (lbs/hr)@peak torque	9.Emission Control Device Per SAE J1930
C660	TBD616V12	885@2000	235	313,3	2250,3@1500	280	279,9	TC, CK, EM, DDI, SPC,
C880	TBD616V16	1180@2000	235	417,7	3000,4@1500	280	373,3	
DA747A1	TBD616V12	1001,7@1800	302	362,3	FIXED	0	0	EM
DA747A2	TBD616V12	1001,7@1800	302	362,3	FIXED	0	0	EM
DA821A1	TBD616V12	1100,9@1800	331	397,1	FIXED	0	0	EM
DA821A2	TBD616V12	1100,9@1800	331	397,1	FIXED	0	0	EM
DA996A1	TBD616V16	1335,6@1800	302	483,1	FIXED	0	0	EM
DA996A2	TBD616V16	1335,6@1800	302	483,1	FIXED	0	0	EM
DA1095A1	TBD616V16	1468,3@1800	331	529,5	FIXED	0	0	EM
DA1095A2	TBD616V16	1468,3@1800	331	529,5	FIXED	0	0	EM
C440**	TBD616-V8	440 590@2000	235	215	2034@1500	280	194	** This rating is